



CLINICO-EPIDEMIOLOGICAL PROFILE AND VARIANTS OF PSORIASIS: A RETROSPECTIVE OBSERVATIONAL STUDY FROM A TERTIARY CARE CENTRE IN JHARKHAND

Dermatology

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ABSTRACT

Background: Psoriasis is a chronic, immune-mediated inflammatory dermatosis with diverse clinical manifestations and significant systemic associations, including psoriatic arthritis, metabolic syndrome, and cardiovascular diseases. The clinico-epidemiological profile and distribution of its morphological variants vary across different geographic regions and populations. Objective: To evaluate the clinico-epidemiological profile and various clinical variants of psoriasis in patients attending a tertiary care centre in Jharkhand. Methods: This retrospective observational study was conducted in the Department of Dermatology, Venereology and Leprosy at RIMS, Ranchi. Medical records of patients diagnosed clinically and/or histopathologically with psoriasis between January 2024 and December 2024 were reviewed. Data regarding demographic characteristics, clinical variants, sites of involvement, duration, comorbidities, and treatment history were collected and analyzed. Results: The study aims to determine the distribution of different morphological variants such as chronic plaque psoriasis, guttate psoriasis, inverse psoriasis, pustular psoriasis, erythrodermic psoriasis, scalp psoriasis, nail psoriasis, and sebopsoriasis. It will also analyze demographic patterns, associated comorbidities, and prevalence of rare and severe forms in a tertiary care setting. Conclusion: This study will provide valuable regional data on the clinico-epidemiological patterns of psoriasis, aiding in early diagnosis, better understanding of disease burden, and optimization of management strategies tailored to the population of Jharkhand.

KEYWORDS

Psoriasis; Clinico-epidemiological Profile; Morphological Variants; Chronic Plaque Psoriasis; Pustular Psoriasis; Guttate Psoriasis; Psoriatic Arthritis; Comorbidities.

INTRODUCTION

Psoriasis is a chronic, immune-mediated inflammatory disease characterized by erythematous, scaly plaques due to epidermal hyperproliferation and immune dysregulation. It is associated with systemic comorbidities including psoriatic arthritis and cardiovascular disease.

Clinically, psoriasis is classified into non-pustular and pustular forms. Chronic plaque psoriasis is the most common type, while guttate, erythrodermic, inverse, scalp, nail, and pustular forms represent other important variants. These variants differ in clinical presentation, severity, and prognosis.

The global prevalence of psoriasis varies widely from 0.09% to 11.4%. Understanding regional patterns is important for improving patient care. Tertiary care centres provide valuable data due to the presence of diverse and severe cases. This study aims to evaluate the clinico-epidemiological profile of psoriasis in a tertiary care setting in Jharkhand.

MATERIALS AND METHODS

Study Design:

Retrospective observational study

Study Setting:

Department of Dermatology, Venereology & Leprosy, RIMS, Ranchi

Study Duration: 12 months (January 2024–December 2024)

Study Population:

All patients diagnosed with psoriasis attending OPD/IPD.

Inclusion Criteria:

- Clinically or histopathologically diagnosed psoriasis
- All age groups and both genders
- Complete medical records available

Exclusion Criteria:

- Incomplete records
- Uncertain diagnosis
- Duplicate follow-up entries

Sample Size:

Based on total available records (no formal calculation).

Data Collection:

- Demographic details
- Clinical variants
- Sites of involvement
- Comorbidities
- Treatment history

CLASSIFICATION OF PSORIASIS

1. Non-pustular psoriasis

- Chronic plaque psoriasis
- Guttate psoriasis
- Inverse psoriasis
- Scalp psoriasis
- Nail psoriasis
- Sebopsoriasis
- Palmoplantar psoriasis
- Erythrodermic psoriasis

2. Pustular psoriasis

- Generalized pustular psoriasis
- Impetigo herpetiformis
- Localized pustular psoriasis
- Palmoplantar pustulosis
- Acrodermatitis continua

EXPECTED OUTCOME

- Understanding regional epidemiology
- Better classification and diagnosis
- Identification of comorbidities
- Improved management strategies

RESULTS

A total of 580 patients diagnosed with Psoriasis were included in the study, comprising 380 males and 200 females, with a male-to-female ratio of approximately 1.9:1.

Chronic plaque psoriasis was the most common clinical variant, observed in 412 (71.03%) patients, with a marked male predominance (270 males, 142 females). Palmoplantar psoriasis was the second most common variant, seen in 92 (15.86%) patients, again showing male predominance (56 males, 36 females).

Sebopsoriasis was noted in 30 (5.17%) patients, followed by guttate psoriasis in 14 (2.41%) patients.

Fig-1: Inverse psoriasis characterized by sharply demarcated erythematous plaques localized to intertriginous regions.



Pustular psoriasis was observed in 13 (2.24%) cases. Erythrodermic psoriasis, a relatively severe variant, was seen in 11 (1.9%) patients and showed a slight female predominance (6 females, 5 males).

Nail psoriasis was present in 5 (0.8%) patients. Psoriatic arthritis was identified in 3 (0.5%) patients, all of whom were males.

Overall, most variants demonstrated a male predominance, except erythrodermic psoriasis, which showed a marginally higher occurrence in females.

Table-1: Distribution of Psoriasis patients according to different age groups.

Age groups(years)	Psoriasis n(%)
1-14	37(6.38%)
15-30	151(26.03%)
31-50	250(43.11%)
51-60	84(14.48%)
>60	58(10%)

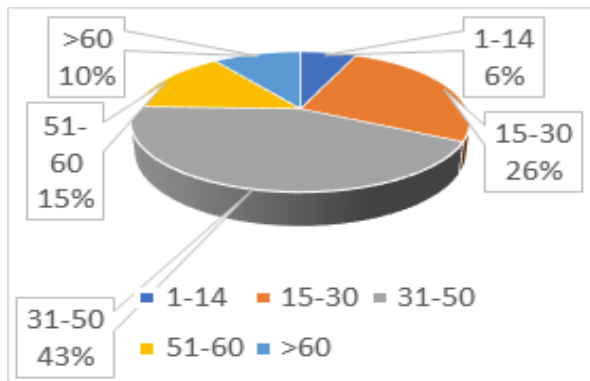


Fig-2: Distribution of Psoriasis in different age group.

Table-2: Distribution of different morphological forms of Psoriasis according to gender.

Variant	Male	Female	Total
(A) Chronic Plaque Psoriasis	270	142	412
(B) Palmoplantar Psoriasis	56	36	92
(C) Guttate Psoriasis	10	4	14
(D) Sebopsoriasis	22	8	30
(E) Pustular Psoriasis	10	3	13
(F) Erythrodermic Psoriasis	5	6	11
(G) Nail Psoriasis	4	1	5
(H) Psoriasis with Psoriatic Arthritis	3	0	3

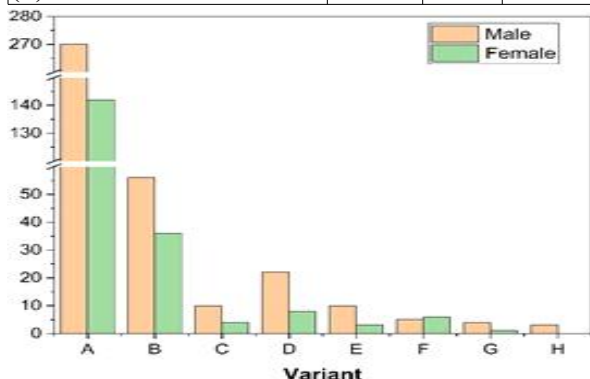


Fig-3: Bar graph showing gender wise distribution of Psoriasis variants.

DISCUSSION

Psoriasis is a chronic, immune-mediated disorder with diverse clinical presentations and significant epidemiological variability across different populations. The present study evaluated the clinico-epidemiological profile and distribution of psoriasis variants in a tertiary care centre in Jharkhand.

In this study, chronic plaque psoriasis emerged as the most common variant, accounting for 71.03% of cases. This finding is consistent with previous studies, including those by Griffiths CEM et al. and Dogra S et al., which have also reported plaque psoriasis as the predominant clinical type. The high prevalence of this variant reflects its chronic course and higher likelihood of presentation to tertiary care centres.



Figure 4 - Erythrodermic psoriasis showing generalized erythema and scaling involving nearly the entire body surface.

Palmoplantar psoriasis was the second most common variant (15.86%), which is relatively higher compared to some Western studies but aligns with Indian studies where increased manual labor, trauma, and environmental factors may contribute to its higher occurrence.

A clear male predominance (M:F ≈ 1.9:1) was observed in the present study, which is in agreement with earlier Indian studies such as those by Dogra S et al. However, some global studies have reported a more equal gender distribution, suggesting possible regional and sociocultural influences on healthcare-seeking behaviour.

Guttate psoriasis (2.41%) and pustular psoriasis (2.24%) were relatively less common in this study, similar to findings reported in literature. Sebopsoriasis was observed in a small proportion of cases, highlighting its overlap with seborrheic dermatitis and the importance of careful clinical differentiation.

Erythrodermic psoriasis, a severe and potentially life-threatening form, was observed in 1.9% of patients and showed a slight female predominance. Nail involvement was seen in a small percentage (0.8%) of cases, although this may be underestimated due to retrospective data limitations.

Psoriatic arthritis was identified in a small proportion of patients (0.5%), all of whom were males. This is lower than the prevalence reported in other studies, possibly due to underdiagnosis or lack of detailed rheumatological evaluation in retrospective records.

Overall, the findings of this study are largely consistent with existing literature and reinforce the heterogeneity of psoriasis. The variations observed in the frequency of different clinical types may be attributed to genetic, environmental, and regional factors, as well as referral bias in a tertiary care setting.

CONCLUSION

This study highlights the clinico-epidemiological profile of Psoriasis in patients attending a tertiary care centre in Jharkhand.

Chronic plaque psoriasis was the most common clinical variant, followed by palmoplantar psoriasis, while other variants such as guttate, sebopsoriasis, pustular, erythrodermic, and nail psoriasis were observed less frequently. A clear male predominance (M:F ≈ 1.9:1) was noted across most variants, except for a slight female predominance in erythrodermic psoriasis. Psoriatic arthritis was seen in a small proportion of patients.

These findings reinforce the heterogeneous nature of psoriasis and highlight the importance of early diagnosis, proper classification, and timely management. The study also provides useful regional data that may aid in improving clinical care and guiding future research.

LIMITATION

1. This study has certain limitations. Being a retrospective, record-based study, it depended on the accuracy and completeness of existing medical records, which may have led to missing or incomplete data.
2. The study was conducted at a single tertiary care centre.

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